

Abstract (Basic): WO 9012868 A

Monoclonal antibody (MAb) which binds to the CD4-binding region of HIV-1 gp. 120, and inhibits infection of T cells, is new. It is of mouse origin or is a chimeric mouse/human Ab and is of IgG isotype. An

antigen (Ag) binding fragment of the MAb can also be used. Binding is to the sequence: IINMWAKVGKAMYAP of gp. 120. Also new is a continuous, stable Ab-producing cell line for producing the above HIV-neutralising MAb, and a peptide with a sequence identical to that of an epitope of the CD4-binding region of gp 120. MAbs G3-42, G3-211, G3-299, G3-508, G3-519, G3-536, G3-537, G45-60, G45-16, G45-70 and G45-89 are specifically claimed.

USE/ADVANTAGE - Used, as an Ab conjugate, to treat HIV-1 infected individuals. It can also be used to develop anti-idiotypes used in diagnostic assays, Ab and drug-screening.

In an example, virus neutralisations studies on the G3 series MAbs were performed using (1) a syncytium forming assay using CEM-SS cells; and (2) a neutralisation assay using H9 cells. Only assay (1) was used for the G45 cells. In (1), syncytia were counted on days 3 or 4. HTLV-IIIB and HTLV-IIIRF isolates were used, which differ by 21.4% in their predicted sequence in gp. 120. HTLV-III 284 and HTLV-III A1 were also used, which differ from the above strains. G3-299 was strongest in neutralising HTLV-IIIB where as G3-519 was the most potent at neutralising HTLV-IIIRF. G45-60 was equal to G3-519 in neutralising HTLV-III RF and -III MN G45-60 was more effective at neutralising HTLV-III 284. Similar results of HIV-1 neutralisation were obtd. for the G3 series using the 2nd assay.

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